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ALEXANDRIA, VA 22314			2687	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/619,572

Applicant(s)

TAKEDA ET AL.

Examiner

Marivelisse Santiago-Cordero

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 September 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-25 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 16 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-25 have been considered but are moot in view of the new ground(s) of rejection.
2. Applicant's amendment of the claims enlightened Examiner's new interpretation of the claims and made the claims clearly open to rejection based on new interpretation of the amended claims. Therefore, Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action.

Claim Objections

3. Claims 13-19 are objected to because of the following informalities: the term "forwards" (claim 13, line 8) should be deleted since applicant's amendment already incorporate the term forwarding at the beginning of the limitation. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 3-5 and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3 recites the limitation "said host network" in line 5 of the claim. There is insufficient antecedent basis for this limitation in the claim, based on applicant's amendment to claim 1.

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Claim 14 recites the limitation "said identifier" in line 5 of the claim. There is insufficient antecedent basis for this limitation in the claim, based on applicant's amendment to the claim in line 4.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1, 3-5, 8, 10-12, and 20-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Oishi (Pub. No.: US 2004/008119).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Regarding claim 1, Oishi discloses a communication system comprising:

a home network installed with a home agent (Fig. 1, reference 1) for holding mobile terminal location information of a mobile terminal (page 1, paragraph [0010]);

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a visited network installed with a radio communications device (Fig. 1, reference 20) for communicating with a mobile terminal (page 1, paragraph [0010]; page 2, paragraph [0046]); and

gateway equipment in said home network for forming an interface with said home network (Fig. 1, reference 2), wherein said radio communication device contains an access request transfer means for forwarding access requests from said mobile terminal of said visited network to said gateway equipment (Fig. 1; page 2, paragraph [0046]),

wherein said gateway equipment comprises:

a prefix request means for requesting a prefix for said mobile terminal from said home agent in response to an access request from said mobile terminal (page 3, paragraph [0063]; page 4, paragraph [0071]), and

a prefix transfer means for receiving the requested prefix from said home agent and forwarding the received prefix to said mobile terminal (page 4, paragraph [0067]), and

wherein the prefix is used to generate a home address in said mobile terminal (page 4, paragraph [0069]).

Regarding claim 3, Oishi discloses a communication system according to claim 1, further comprising:

decision means for deciding whether or not authentication processing of said mobile terminal is required, utilizing a source address of the access request from said mobile terminal moving in said host network (page 6, paragraph [0107]); and

authentication means for starting authentication processing of said mobile terminal when said decision means decides that authentication processing is required (page 4, paragraph [0066]),

wherein said prefix request means makes a request to said home agent for acquisition of said mobile terminal prefix after said authentication is successful (page 4, paragraphs [0066]-[0067]).

Regarding claim 4, Oishi discloses a communication system according to claim 3, wherein said gateway equipment further comprises a location information holding means for holding location information on said mobile terminal in said visited network, wherein said authentication means starts said authentication processing after said location information holding means has received a location registration request from said mobile terminal (page 4, paragraph [0072]).

Regarding claim 5, Oishi discloses a communication system according to claim 4, wherein said location information holding means holds location information on said mobile terminal after said authentication processing was successful (page 5, paragraph [0084]).

Regarding claim 8, Oishi discloses a gateway equipment, installed in a visited network containing a radio communications device for communicating with a mobile terminal, for forming an interface with a home network containing a home agent for holding location information on said mobile terminal (Fig. 1), said gateway equipment comprising:

a prefix acquisition request means for requesting acquisition of a prefix for said mobile terminal from said home agent in response to an access request from said mobile terminal (page 3, paragraph [0063]; page 4, paragraph [0071]); and

a prefix transfer means for receiving the requested prefix from said home agent and forwarding the received prefix to said mobile terminal (page 4, paragraph [0067]);

wherein the prefix is used to generate a home address in said mobile terminal (page 4, paragraph [0069]).

Regarding claim 10, Oishi discloses a gateway equipment according to claim 8, further comprising:

decision means for deciding whether or not authentication processing using a source address for the access request from mobile terminal moving within said visited network is required (page 6, paragraph [0107]); and

authentication means for starting authentication processing of said mobile terminal when said decision means decides that authentication is required (page 4, paragraph [0066]),

wherein said prefix request means makes a request to said home agent to acquire the prefix of said mobile terminal, after said authentication was successful (page 4, paragraphs [0066]-[0067]).

Regarding claim 11, Oishi discloses a gateway equipment according to claim 10, further comprising: location information holding means for holding information of a location of said mobile terminal, wherein said authentication means starts said authentication processing after receiving a location registration request from said mobile terminal fro said location information holding means (page 4, paragraph [0072]).

Regarding claim 12, Oishi discloses a gateway equipment according to claim 11, wherein said location information holding means holds location information on said mobile terminal after said authentication processing was successful (page 5, paragraph [0084]).

Regarding claim 20, Oishi discloses an authentication method for a mobile terminal used in a communication system which includes a home network installed with a home agent (Fig. 1, reference 1) for holding mobile terminal location information of a mobile terminal (page 1, paragraph [0010]), a visited network installed with a radio communications device (Fig. 1, reference 20) for communicating with a mobile terminal (page 1, paragraph [0010]; page 2, paragraph [0046]), and gateway equipment in said visited network for forming an interface with said home network (Fig. 1, reference 2), wherein said radio communication device forwards an access request from said mobile terminal of said visited network to said gateway equipment (Fig. 1; page 2, paragraph [0046]), said authentication method comprising:

making, by said gateway equipment an acquisition request to said home agent for a prefix for said mobile terminal, forwarding an acquired prefix to said mobile terminal (page 3, paragraph [0063]; page 4, paragraph [0071]), and authenticating said mobile terminal (page 4, paragraph [0066]);

wherein the prefix is used to generate a home address in said mobile terminal (page 4, paragraph [0069]).

Regarding claim 21, Oishi discloses an authentication method according to claim 20, further comprising:

deciding, by said gateway equipment, whether or not authentication processing is required using a source address for the access request from mobile terminal moving within said visited network (page 6, paragraph [0107]), and

performing, by said gateway equipment, authentication processing when decided that authentication is necessary (page 4, paragraph [0066])

Regarding claim 22, Oishi discloses an authentication method according to claim 21, further comprising:

holding, by said gateway equipment the location information of said mobile terminal in said visited network (page 4, paragraph [0072]), and

performing, by said gateway equipment, authentication processing after receiving a location registration request from said mobile terminal (page 3, paragraph [0063]).

Regarding claim 23, Oishi discloses an authentication method according to claim 21, further comprising: holding, by said gateway equipment said mobile terminal location information after said authentication processing was successful (page 5, paragraph [0084]).

8. Claims 8-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Ishiyama et al. (hereinafter "Ishiyama"; Pub. No.: US 2003/0120766).

Regarding claim 8, Ishiyama discloses a gateway equipment, installed in a visited network containing a radio communications device for communicating with a mobile terminal, for forming an interface with a home network containing a home agent for holding location information on said mobile terminal, said gateway equipment comprising:

a prefix acquisition request means for requesting acquisition of a prefix for said mobile terminal from said home agent in response to an access request from said mobile terminal (page 6, paragraph [0084]); and

a prefix transfer means for receiving the requested prefix from said home agent and forwarding the received prefix to said mobile terminal (page 6, paragraph [0089]);

wherein the prefix is used to generate a home address in said mobile terminal (page 6, paragraph [0092]).

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Regarding claim 9, Ishiyama discloses a gateway equipment according to claim 8, wherein said prefix request means makes a prefix acquisition request (page 6, paragraph [0084]) and a Domain Name Server (DNS) server information acquisition request to said home agent (page 4, paragraph [0047]), and wherein said prefix transfer means forwards the acquired DNS server information along with said prefix to said mobile terminal (page 4, paragraph [0047]; page 6, paragraph [0089]).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

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invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claim 1-2, 6-7, 13-14, 18-19, and 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Veerepalli et al. (hereinafter "Veerepalli"; Pub. No.: US 2003/0153324, cited in form PTO-892, paper no. 20050513) in view of Ishiyama.

Regarding claim 1, Veerepalli discloses a communication system comprising:

a home network installed with a home agent (Fig. 1, reference 104) for holding mobile terminal location information of a mobile terminal (page 2, paragraph [0042]);

a visited network installed with a radio communications device (page 2, paragraph [0041]) for communicating with a mobile terminal (Fig. 1, reference 102); and

gateway equipment in said home network for forming an interface with said home network (page 2, paragraph [0045]), wherein said radio communication device contains an access request transfer means for forwarding access requests from said mobile terminal of said visited network to said gateway equipment (page 3, paragraph [0053]),

Veerepalli fails to disclose wherein said gateway equipment comprises:

a prefix request means for requesting a prefix for said mobile terminal from said home agent in response to an access request from said mobile terminal, and

a prefix transfer means for receiving the requested prefix from said home agent and forwarding the received prefix to said mobile terminal, and

wherein the prefix is used to generate a home address in said mobile terminal.

However, Ishiyama discloses a communication system wherein said gateway equipment comprises:

a prefix request means for requesting a prefix for said mobile terminal from said home agent in response to an access request from said mobile terminal (page 5, paragraphs [0068] and [0080]; page 6, paragraph [0084]), and

a prefix transfer means for receiving the requested prefix from said home agent and forwarding the received prefix to said mobile terminal (page 5, paragraph [0070]; page 6, paragraph [0089]), and

wherein the prefix is used to generate a home address in said mobile terminal (page 3, paragraph [0038]; page 6, paragraph [0092]).

Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to incorporate in the gateway of Veerepalli a prefix request means for requesting a prefix for said mobile terminal from said home agent in response to an access request from said mobile terminal, and a prefix transfer means for receiving the requested prefix from said home agent and forwarding the received prefix to said mobile terminal, and wherein the prefix is used to generate a home address in said mobile terminal as suggested by Ishiyama.

One of ordinary skill in this art would have been motivated to incorporate in the gateway a prefix request means for requesting a prefix for said mobile terminal from said home agent in response to an access request from said mobile terminal, and a prefix transfer means for receiving the requested prefix from said home agent and forwarding the received prefix to said mobile terminal, and wherein the prefix is used to generate a home address in said mobile terminal because it would prevent the privacy violation that utilizes IP address (Ishiyama: page 1, paragraph [0015]).

Regarding claim 2, in the obvious combination, Ishiyama discloses wherein along with making a prefix acquisition request (page 6, paragraph [0084]), said prefix request means also requests acquisition of Domain Name Server (DNS) server information from said home agent (page 4, paragraph [0047]), and wherein said prefix transfer means forwards the acquired DNS server information along with said prefix to said mobile terminal (page 4, paragraph [0047]; page 6, paragraph [0089]).

Regarding claim 6, Veerepalli discloses a communication system comprising:

a home network installed with a home agent (Fig. 1, reference 104) for holding mobile terminal location information of a mobile terminal (page 2, paragraph [0042]);

a visited network installed with a radio communications device (page 2, paragraph [0041]) for communicating with a mobile terminal (Fig. 1, reference 102); and

gateway equipment in said home network for forming an interface with said home network (page 2, paragraph [0045]), wherein said radio communication device contains an access request transfer means for forwarding access requests from said mobile terminal of said visited network to said gateway equipment (page 3, paragraph [0053]),

Veerepalli fails to disclose wherein said gateway equipment comprises:

a prefix request means for requesting a prefix for said mobile terminal from said home agent in response to an access request from said mobile terminal, and

a prefix transfer means for receiving the requested prefix from said home agent and forwarding the received prefix to said mobile terminal,

wherein said mobile terminal comprises:

home address creating means for acquiring prefix from said gateway equipment and creating a mobile terminal home address, and

binding information registration means for registering information corresponding to a mobile terminal home address created from said prefix and identification information of said mobile terminal at a Domain Name Server (DNS) server in a visited network, relay network or in home network.

However, Ishiyama discloses a communication system wherein said gateway equipment comprises:

a prefix request means for requesting a prefix for said mobile terminal from said home agent in response to an access request from said mobile terminal (page 5, paragraphs [0068] and [0080]; page 6, paragraph [0084]), and

a prefix transfer means for receiving the requested prefix from said home agent and forwarding the received prefix to said mobile terminal (page 5, paragraph [0070]; page 6, paragraph [0089]),

wherein said mobile terminal comprises:

home address creating means for acquiring prefix from said gateway equipment and creating a mobile terminal home address (page 3, paragraph [0038]; page 6, paragraph [0092]), and

binding information registration means for registering information corresponding to a mobile terminal home address created from said prefix and identification information of said mobile terminal at a Domain Name Server (DNS) server in a visited network, relay network or in home network (page 4, paragraph [0047]; page 6, paragraphs [0089] and [0092]).

Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to incorporate in the gateway of Veerepalli a prefix request means for requesting a prefix for said mobile terminal from said home agent in response to an access request from said mobile terminal, and a prefix transfer means for receiving the requested prefix from said home agent and forwarding the received prefix to said mobile terminal, wherein said mobile terminal comprises: home address creating means for acquiring prefix from said gateway equipment and creating a mobile terminal home address, and binding information registration means for registering information corresponding to a mobile terminal home address created from said prefix and identification information of said mobile terminal at a Domain Name Server (DNS) server in a visited network, relay network or in home network as suggested by Ishiyama.

One of ordinary skill in this art would have been motivated to incorporate in the gateway a prefix request means for requesting a prefix for said mobile terminal from said home agent in response to an access request from said mobile terminal, and a prefix transfer means for receiving the requested prefix from said home agent and forwarding the received prefix to said mobile terminal, wherein said mobile terminal comprises: home address creating means for acquiring prefix from said gateway equipment and creating a mobile terminal home address, and binding information registration means for registering information corresponding to a mobile terminal home address created from said prefix and identification information of said mobile terminal at a Domain Name Server (DNS) server in a visited network, relay network or in home network because it would prevent the privacy violation that utilizes IP address (Ishiyama: page 1, paragraph [0015]).

Regarding claim 7, in the obvious combination, Ishiyama discloses further comprising: network management equipment connected to said home network and said visited network, wherein said home agent and said gateway equipment comprise acquisition means for acquiring, from said network management equipment, programs and data required for distributing prefixes (Fig. 2) and authenticating said mobile terminal (Fig. 2; note that authentication is commonly known in roaming terminals).

Regarding claim 13, Veerepalli discloses a communication method including a home network installed with a home agent (Fig. 1, reference 104) for holding mobile terminal location information of a mobile terminal (page 2, paragraph [0042]);

a visited network installed with a radio communications device (page 2, paragraph [0041]) for communicating with a mobile terminal (Fig. 1, reference 102); and

gateway equipment in said home network for forming an interface with said home network (page 2, paragraph [0045]), the communication method comprising: forwarding, by said radio communication device an access request from said mobile terminal of said visited network to said gateway equipment (page 3, paragraph [0053]).

Veerepalli fails to disclose making, by said gateway equipment an acquisition request to said home agent for a prefix for said mobile terminal, and said forwarding an acquired prefix to said mobile terminal; and creating, by said mobile terminal, a mobile terminal home address based on said prefix acquired from said gateway equipment, searching a Domain Name Server (DNS) terminal an forwarding a packet addressed to said mobile terminal by registering mapping information along with said mobile terminal home address generated from said prefix and a

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mobile terminal identification information in a DNS server within a relay network or home network.

However, Ishiyama discloses making, by said gateway equipment an acquisition request to said home agent for a prefix for said mobile terminal (page 5, paragraphs [0068] and [0080]; page 6, paragraph [0084]), and said forwarding an acquired prefix to said mobile terminal (page 5, paragraph [0070]; page 6, paragraph [0089]); and creating, by said mobile terminal, a mobile terminal home address based on said prefix acquired from said gateway equipment (page 3, paragraph [0038]; page 6, paragraph [0092]), searching a Domain Name Server (DNS) terminal (page 4, paragraph [0047]) and forwarding a packet addressed to said mobile terminal (note that this is well-known in the art) by registering mapping information along with said mobile terminal home address generated from said prefix and a mobile terminal identification information in a DNS server within a relay network or home network (page 4, paragraph [0047]; page 6, paragraph [0092]).

Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to incorporate in the method of Veerepalli making, by said gateway equipment an acquisition request to said home agent for a prefix for said mobile terminal, and said forwarding an acquired prefix to said mobile terminal; and creating, by said mobile terminal, a mobile terminal home address based on said prefix acquired from said gateway equipment, searching a Domain Name Server (DNS) terminal and forwarding a packet addressed to said mobile terminal by registering mapping information along with said mobile terminal home address generated from said prefix and a mobile terminal identification information in a DNS server within a relay network or home network as suggested by Ishiyama..

One of ordinary skill in this art would have been motivated to incorporate in the method making, by said gateway equipment an acquisition request to said home agent for a prefix for said mobile terminal, and said forwarding an acquired prefix to said mobile terminal; and creating, by said mobile terminal, a mobile terminal home address based on said prefix acquired from said gateway equipment, searching a Domain Name Server (DNS) terminal and forwarding a packet addressed to said mobile terminal by registering mapping information along with said mobile terminal home address generated from said prefix and a mobile terminal identification information in a DNS server within a relay network or home network because it would prevent the privacy violation that utilizes IP address (Ishiyama: page 1, paragraph [0015]).

Regarding claim 14, in the obvious combination, Ishiyama discloses further comprising: making, by said gateway equipment, a DNS server information acquisition request and a prefix request to said home agent, and forwards the acquired DNS server information and said prefix to said mobile terminal (page 4, paragraph [0047]; page 6, paragraph [0089]).

Regarding claim 18, in the obvious combination, Ishiyama discloses acquiring, by said mobile terminal, said prefix from said gateway equipment and creating a home address for said mobile terminal (page 3, paragraph [0038]; page 6, paragraph [0092]), and registering mapping information with said mobile terminal home address generated from said prefix and said mobile terminal identification information, in a DNS server within a home network, or a visited network or relay network (page 4, paragraph [0047]; page 6, paragraphs [0089] and [0092]).

Regarding claim 19, in the obvious combination, Ishiyama discloses wherein said communication system further includes a network management equipment connected to said home network and said visited network, wherein said home agent and said gateway equipment

acquires programs and data from said network management equipment required for distributing the prefixes (Fig. 2) and authenticating mobile terminals (Fig. 2; note that authentication is commonly known in roaming terminals).

Regarding claim 24, Veerepalli discloses an authentication method for a mobile terminal used in a communication system which includes a home network installed with a home agent (Fig. 1, reference 104) for holding mobile terminal location information of a mobile terminal (page 2, paragraph [0042]), a visited network installed with a radio communications device (page 2, paragraph [0041]) for communicating with a mobile terminal (Fig. 1, reference 102), and gateway equipment in said visited network for forming an interface with said home network (page 2, paragraph [0045]), wherein said radio communication device forwards an access request from said mobile terminal of said visited network to said gateway equipment (page 3, paragraph [0053]), said authentication method comprising: authenticating said mobile terminal (page 3, paragraph [0054]).

Veerepalli fails to disclose said authentication method comprising: making, by said gateway equipment, an acquisition request to said home agent for a prefix for said mobile terminal, forwarding an acquired prefix to said mobile terminal, authenticating said mobile terminal, acquiring, by said mobile terminal said prefix from said gateway equipment and creating a home address for said mobile terminal and registering mapping information with said mobile terminal home address generated from said prefix and a mobile terminal identification information, in a DNS server within a home network, or a visited network or relay network.

However, Ishiyama discloses said authentication method comprising: making, by said gateway equipment, an acquisition request to said home agent for a prefix for said mobile

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terminal (page 5, paragraphs [0068] and [0080]; page 6, paragraph [0084]), forwarding an acquired prefix to said mobile terminal (page 5, paragraph [0070]; page 6, paragraph [0089]), authenticating said mobile terminal (page 5, paragraph [0070]; page 6, paragraph [0089]), acquiring, by said mobile terminal said prefix from said gateway equipment (page 3, paragraph [0038]; page 6, paragraph [0092]) and creating a home address for said mobile terminal (page 3, paragraph [0038]; page 6, paragraph [0092]) and registering mapping information with said mobile terminal home address generated from said prefix and a mobile terminal identification information, in a DNS server within a home network, or a visited network or relay network (page 4, paragraph [0047]; page 6, paragraph [0092]).

Regarding claim 25, in the obvious combination, Ishiyama discloses wherein said communication system further includes a network management equipment connected to said home network and said visited network, wherein said home agent and said gateway equipment acquire programs and data required from said network management equipment for distributing prefixes (Fig. 2) and authenticating mobile terminals (Fig. 2; note that authentication is commonly known in roaming terminals).

12. Claims 15-17 are rejected under 35 U.S.C. 103(a) as being obvious over Veerepalli in combination with Ishiyama (hereinafter “Veerepalli/Ishiyama”) as applied to claim 13 above, and further in view of Oishi.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the

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inventor of this application and is thus not an invention “by another”; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

Regarding claim 15, Veerepalli/Ishiyama disclose a communication method according to claim 13 (see above) further comprising: requesting, by said gateway equipment, acquisition of a prefix for said mobile terminal from said home agent (page 5, paragraphs [0068] and [0080]; page 6, paragraph [0084]). Veerepalli/Ishiyama fail to disclose deciding, by said gateway equipment, whether or not authentication processing is required using a source address of the access request from said mobile terminal moving within said visited network; starting, by said gateway equipment the authentication processing for the mobile terminal when it is decided by said deciding step that authentication is required; and requesting, by said gateway equipment, acquisition of a prefix for said mobile terminal from said home agent after the authentication was successful.

However, in the same field of endeavor, Oishi discloses deciding, by said gateway equipment, whether or not authentication processing is required using a source address of the

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access request from said mobile terminal moving within said visited network (page 6, paragraph [0107]), and

starting, by said gateway equipment the authentication processing for the mobile terminal when it is decided by said deciding step that authentication is required (page 4, paragraph [0066]); and

requesting, by said gateway equipment, acquisition of a prefix for said mobile terminal from said home agent after the authentication was successful (page 4, paragraphs [0066]-[0067]).

Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to incorporate in the communication method of Veerepalli/Ishiyama deciding, by said gateway equipment, whether or not authentication processing is required using a source address of the access request from said mobile terminal moving within said visited network; starting, by said gateway equipment the authentication processing for the mobile terminal when it is decided by said deciding step that authentication is required; and requesting, by said gateway equipment, acquisition of a prefix for said mobile terminal from said home agent after the authentication was successful as suggested by Oishi.

One of ordinary skill in this art would have been motivated to incorporate in the communication method deciding, by said gateway equipment, whether or not authentication processing is required using a source address of the access request from said mobile terminal moving within said visited network; starting, by said gateway equipment the authentication processing for the mobile terminal when it is decided by said deciding step that authentication is required; and requesting, by said gateway equipment, acquisition of a prefix for said mobile terminal from said home agent after the authentication was successful because it would properly

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access the services provided and would decrease the connection time if the terminal has previously been authenticated by managing information on contracts (Oishi: page 1, paragraph [0010]) and would prevent the privacy violation that utilizes the IP address (Ishiyama: page 1, paragraph [0015]).

Regarding claim 16, in the obvious combination, Oishi discloses further comprising: holding, by said gateway equipment the location information of said mobile terminal in said visited network (page 4, paragraph [0072]), and

starting, by said gateway equipment, said authentication processing after receiving a location registration request from said mobile terminal (page 3, paragraph [0063]).

Regarding claim 17, in the obvious combination, Oishi discloses further comprising: holding, by said gateway equipment said mobile terminal location information after said authentication processing was successful (page 5, paragraph [0084]).

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Chandra et al. (Pub. No.: US 2003/01217180) discloses DHCP based home address management of mobile IP clients; Funabiki et al. (Pub. No.: US 2005/0020265) discloses a mobile node, router, server, and method for mobile communications under IP protocol.

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marivelisse Santiago-Cordero whose telephone number is (571) 272-7839. The examiner can normally be reached on Monday through Friday from 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on (571) 272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MSC 12/9/05

MSC


ELISEO RAMOS-FELICIANO
PATENT EXAMINER